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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,697	10/23/2003	Krzysztof W. Przytula	HRL135	9790

28848 7590 04/20/2007
TOPE-MCKAY & ASSOCIATES
23852 PACIFIC COAST HIGHWAY #311
MALIBU, CA 90265

EXAMINER

PATEL, SHAMBHAVI K

ART UNIT	PAPER NUMBER
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2128

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/692,697	Applicant(s) PRZYTULA ET AL.	
	Examiner Shambhavi Patel	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-26, 28-43, 45-60 and 62-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-26, 28-43, 45-60 and 62-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment, Remarks, and Affidavit submitted 16 January 2007.
2. Claims 1-9, 11-26, 28-43, 45-60 and 62-68 are pending. Claims 10, 27, 44 and 61 have been withdrawn from consideration.

Response to Arguments

3. The objections to claims 10, 27, 44 and 61 are withdrawn.
4. The 35 U.S.C. 112 2nd rejection is withdrawn. However, the Examiner notes that the Applicant submits "the claims of the present invention, as currently written, disclose process acts, means, or structural limitations that are able to stand alone on their own, and that these claims do not depend on the preamble for completeness" and "base Claims 1, 18, 35 and 52 clearly disclose a series of steps or acts that ultimately result on 'outputting a representation of the plurality of the probabilities of the states of the conclusion nodes,' wherein this resulting plurality of probabilities stand alone on their own to evaluate Bayesian network models for decision support." **The Examiner maintains that the preamble to each of claims 1, 18, 35 and 52 is given no patentable weight. If given their broadest reasonable interpretation, the limitations do not denote the *automatic* evaluation of Bayesian network models.**
5. **The 102(b) rejection of claims 1, 2, 10, 16-19, 27, 33-36, 44, 50-53, 61, 67, and 68 as being anticipated by Skaanning (US Pub. No. 2001/0011260) and the 35 U.S.C. 103(a) rejection of claims 3-9, 11-15, 20-26, 28-32, 37-43, 45-49, 54-60 and 62-66 as being unpatentable over Skaanning (US Pub. No. 2001/0011260) in view of Murphy ('Dynamic Bayesian Networks: Representation, Inference and Learning') are withdrawn.**
6. Applicant's arguments regarding the 35 U.S.C. 102(a) rejection of claims 1-68 have been fully considered but they are not persuasive. **The 35 U.S.C. 102(a) rejection of claims 1-9, 11-26, 28-43, 45-60 and 62-68 is maintained.**

Regarding the 37 CFR 1.131 declaration filed 17 January 2007:

- i. The declaration filed on 17 January 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Thompson reference.
- ii. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Thompson reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).
- iii. The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Thompson reference to either a constructive reduction to practice or an actual reduction to practice. The presented evidence alleges conception of 3/28/2002, and the filing date of the application is 10/23/2003:

DATE STARTED	DATE COMPLETED	TIME SPENT
3/28/2002	09/13/2002	40 hours

If Applicants are claiming constructive reduction, Applicants have not accounted for the entire 7 months for which diligence must be shown, and if Applicants are claiming actual reduction, Applicants have not accounted for the entire 6 months for which diligence must be shown.

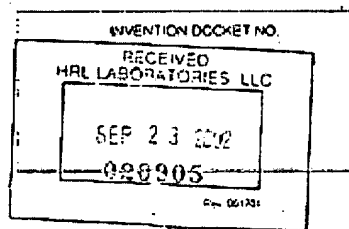
- iv. The Examiner notes that not all Applicants have signed the declaration.
- v. It is unclear whether the Applicants are claiming actual or constructive reduction to practice.

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I, Wojtek Przytula, hereby declare that myself and Denver Dash invented the subject matter of Patent Application No. 10/692,697 at least as early as the date of March 4, 2002, and by acts undertaken wholly in the United States of America, have diligently pursued this invention with the purpose of its reduction to practice or until the filing date of October 23, 2003. Denver Dash was unavailable at the time of signing this declaration.

The Applicants must submit an unambiguous statement regarding this matter.

- vi. The only evidence of conception presented by the Applicant is the document that is dated 9/23/2002:



However, no earlier evidence of conception by *Applicant's own admission* has been presented:

6. RELATED DOCUMENTS AND DISCLOSURES (BY YOU OR BY ANOTHER). PLEASE ATTACH COPY.			
A IS THERE A PUBLICATION OR PUBLIC PRESENTATION RELATED TO THE INVENTION?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	DATE	IDENTIFY
B ARE THERE ANY RELATED INVENTION DISCLOSURES OR PATENT APPLICATIONS?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	DATE	IDENTIFY PD NO ETC
C ARE THERE ANY PROPOSALS OR REPORTS OR OTHER DOCUMENTS RELATING TO THIS INVENTION?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	DATE	IDENTIFY
D HAS THE INVENTION BEEN USED INSIDE OR OUTSIDE THE COMPANY, OR DISCUSSED, DEMONSTRATED, OR OTHERWISE DISCLOSED OUTSIDE THE COMPANY (SUCH AS TO A VENDOR OR CUSTOMER)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	DATE	TO FOR WHOM (COMPANY/PERSON)
7. SALE			
A HAS PRODUCT EMBODYING INVENTION OR MADE BY INVENTION BEEN PROPOSED, SOLD, OR OFFERED FOR SALE?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ORDER NO.	ORDER DATE DELIVERY DATE DATE OFFERED OR PROPOSED
B IS PRODUCT EMBODYING INVENTION OR MADE BY INVENTION IN A DELIVERABLE ITEM?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	DELIVERY DATE	

- vii. Applicants do not map the provided exhibit to the claim. See MPEP 715.07 (emphasis added):

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The essential thing to be shown under 37 CFR 1.131 is priority of invention and this may be done by any satisfactory evidence of the fact. FACTS, not conclusions, must be alleged. Evidence in the form of exhibits may accompany the affidavit or declaration.

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred.").

Applicants have merely recited the independent claims, and have not explained the correspondence between the claimed invention and the exhibit.

- viii. Applicants have not submitted any evidence of actual reduction to practice. The submitted document is only referred to for proof of conception:

The invention that is the subject of this patent application was captured in an invention Disclosure, included herewith as Appendix A. Referring to Appendix A, as noted on

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. **Claim 1-9, 11-26, 28-43, 45-60 and 62-68 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Thompson et al. ('Evaluation of Bayesian Networks Used for Diagnostics', March 2003), herein referred to as Thompson.**

Regarding claims 1, 18, 35, and 52:

Thompson discloses a method for automatically evaluating Bayesian network models for decision support comprising:

- a. receiving a Bayesian Network (BN) model (**section 2.2 ‘Bayesian Network Models’**) including evidence nodes and conclusion nodes (**section 2.2 ‘Bayesian Network Models’ paragraph 6**), where the conclusion nodes are linked with the evidence nodes by causal dependency links (**figure 1**), and where the evidence nodes have evidence states and the conclusion nodes have conclusion states (**section 2.2 ‘Bayesian Network Models’ paragraph 6**). The *‘evidence nodes’ in the instant application are analogous to the ‘observation nodes’ in the prior art and the ‘conclusion nodes’ in the instant application are analogous to the ‘component nodes’ in the prior art.*
- b. setting the states of the conclusion nodes to desired conclusion states (**section 3.2 paragraph 4 steps 1 and 2**) and determining, by propagating down the causal dependency links, a corresponding probability of occurrence of evidence states of the evidence nodes (**section 3.2 paragraph 4 steps 3.1 – 3.4**) and producing, from the probability of occurrence, a plurality of samples of most likely states of the evidence nodes (**section 3.2 paragraph 4 step 3**)
- c. setting the states of the evidence nodes to states corresponding to the plurality of samples of the evidence states (**section 3.2 paragraph 6 step 1**), and propagating the evidence states back up the causal dependency links to the conclusion nodes, to obtain a plurality of probabilities of the resulting states of the conclusion nodes (**section 3.2 paragraph 6 step 2**)
- d. outputting a representation of the plurality of the probabilities of the states of the conclusion nodes (**section 3.2 paragraph 8**)

Regarding **claims 18 and 35**, **Thompson discloses** an apparatus for performing the above steps (**section 4.4**), specifically a Dell Dimension 8100 computer.

Regarding **claim 52**, **Thompson discloses** a computer program product for performing the above steps (**section 4.4**), specifically a Windows executable program.

Regarding claims 2, 19, 36, and 53:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the BN model further includes at least one auxiliary node causally linked between at least one evidence node and at least one conclusion node (**section 2.2 'Bayesian Network Models' paragraph 6**).

Regarding claims 3, 20, 37, and 54:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the sampling is performed by a Monte Carlo algorithm (**section 3.2 paragraph 4 step 3**).

Regarding claims 4, 21, 38, and 55:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a complete representation of probabilities of states for all conclusions given a particular set of combinations of conclusion states (**section 4.1 paragraph 1**).

Regarding claims 5, 22, 39, and 56:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a graphical representation (**section 4.1 paragraph 1**).

Regarding claims 6, 23, 40, and 57:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a matrix of averages of probabilities of the conclusion states for implicated conclusions versus a selected set of combinations of conclusion states; whereby a user can determine an accuracy of the BN model's propensity to yield proper conclusions (**section 3.2 paragraph 8; section 4.2**).

Regarding claims 7, 24, 41, and 58:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a graphical representation in the form of a two-dimensional intensity matrix and a three-dimensional bar chart (**figure 4; section 4.2; figure 5**).

Regarding claims 8, 25, 42, and 59:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the conclusion nodes are weighted by weights representing their importance; whereby the accuracy of the BN model's propensity to yield proper conclusions may be weighted for particular conclusions based on their relative importance (**section 3.2 paragraph 7**).

Regarding claims 9, 26, 43, and 60:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the BN model models a diagnostic domain, with the conclusion nodes representing component failures or diseases, the evidence nodes representing recognizable symptoms of those failures or diseases, and the auxiliary nodes representing additional information useful, in conjunction with the evidence nodes and conclusion nodes (**section 2.2 paragraph 6**).

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Regarding claims 10, 27, 44, and 61:

cancelled

Regarding claims 11, 28, 45, and 62:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the sampling is performed by a Monte Carlo algorithm (**section 3.2 paragraph 4 step 3**).

Regarding claims 12, 29, 46, and 63:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a complete representation of probabilities of states for all conclusions given a particular set of combinations of conclusion states (**section 4.1 paragraph 1**).

Regarding claims 13, 30, 47, and 64:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a graphical representation (**section 4.1 paragraph 1**).

Regarding claims 14, 31, 48, and 65:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a matrix of averages of probabilities of the conclusion states for implicated conclusions versus a selected set of combinations of conclusion states; whereby a user can determine an accuracy of the BN model's propensity to yield proper conclusions (**section 3.2 paragraph 8; section 4.2**).

Regarding claims 15, 32, 49, and 66:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the outputted representation is a graphical representation in the form of a two-dimensional intensity matrix (**figure 4**) and a three-dimensional bar chart (**figure 5**).

Regarding claims 16, 33, 50, and 67:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the conclusion nodes are weighted by weights representing their importance; whereby an accuracy of the BN model's propensity to yield proper conclusions may be weighted for particular conclusions based on their relative importance (**section 3.2 paragraph 7**).

Regarding claims 17, 34, 51, and 68:

Thompson discloses automatically evaluating Bayesian network models for decision support, wherein the BN model models a diagnostic domain, with the conclusion nodes representing component failures or diseases, the evidence nodes representing recognizable symptoms of those failures or diseases, and the auxiliary nodes representing additional information useful, in conjunction with the evidence nodes and conclusion nodes (**section 2.2 paragraph 6**).

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Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shambhavi Patel whose telephone number is (571) 272-5877. The examiner can normally be reached on Monday-Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP


KAMINI SHAH
SUPERVISORY PATENT EXAMINER

Shambhavi Patel
Examiner
Art Unit 2128